Blackmagicdesign

DAVINCI RESOLVE 11

MAC OS X SYSTEM CONFIGURATIONS

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BETA

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DaVinci Resolve for Mac

Building the world's highest performing editing and color grading system is simple with this easy to follow guide.

DaVinci Resolve combines the world's most advanced color corrector and image enhancement system with powerful multitrack online editing, so now you can edit, color correct, finish and deliver all from one application!

Whether you are just starting your editing or grading career, building a post production facility or upgrading your existing DaVinci Resolve suite, this guide contains important information which will help you buy, build and configure your system.

The system you select or build may be based on what you already have and can update, or a specific operational or technical requirement.

As a guide, if your projects are SD or low resolutions for the web, you could use a lower powered system compared to the needs of a client supervised 2K or 4K grading session for a TVC or feature film. For low to medium budget HD projects quite often the mid-range powered systems are sufficient.

DaVinci Resolve for Mac operates on current Intel based Mac Pro, iMac and Retina MacBook Pro computers.

The hardware configuration you select has a significant impact on the performance of the overall system. To achieve the best possible experience it is essential to build your DaVinci Resolve system with high performance computer hardware including at least one high performance graphics processor (GPU).

As DaVinci Resolve will use all the available resources to provide the fastest possible processing the configuration defines not only the speed which you can edit, playback and grade but also the time to render your finished timeline.

For your client or grading monitor/projector, DaVinci Resolve also supports the range of Blackmagic Design video I/O cards to provide a SDI output to your calibrated grading display.

Which Mac?

The secret to selecting the correct system configuration for your needs is define a few key parameters.

If you are planning UHD and 4K editing and or grading with clients in attendance, the new Mac Pro is a good choice. Different configurations are detailed below to help your selection.

For HD work with the occasional UHD job, particularly if working in ProRes or DNxHD, the current top of the line iMac is suitable. You will notice some performance limitations with 4K-6K source images and when using optical flow speed changes, temporal processing and noise reduction work.

The 15" late 2013 MacBook Pro with Retina Display is supported for HD work and while it has some processing limitations its excellent portability means it's often found in the field and used for on set work. This system is not optimised for UHD, optical flow speed changes, temporal processing and noise reduction work.

Please review the different configurations detailed below to find the right system for your needs.

Mac Pro

This guide includes details for the late 2013 Mac Pro. Please refer to the 2013 configuration guide to configure the 2012 and older MacPros. Detail of new GPUs and OS for the old Mac Pro can be found after the Mac Pro shopping section later in this guide.

DaVinci Resolve includes support for the OpenCL GPUs including the features that previously were only available on CUDA based GPUs.

The new 2013 Mac Pro includes dual OpenCL GPUs and both of these are used for image processing, even for Resolve Lite licenses. After extensive

testing we recommend the D700 GPUs for HD and UHD work. These perform extremely well for HD.

The D500 GPU model offers limited performance in comparison and may also exhaust the GPU ram with clips or timelines greater than HD, or when temporal processes, NR and optical flow speed changes are requested. The D300 model is not recomended at this time.

When ordering your new MacPro we generally recommend the 8 core CPU with a minimum of 16GB system ram. The 6 core CPU is supported and viable for HD resolution clips. The 12 core CPU is ideal for when source clips are UHD or higher resolutions and include clip compression, such as clips from the RED and Sony camera range.

All external disk storage systems and the single or dual GUI monitoring is via the Thunderbolt 2 ports.

The Thunderbolt ports are also used to connect the Blackmagic Design UltraStudio 4K for video and audio I/O. The UltraStudio SDI output is connected to your editing and grading video monitor.

iMac

The 27" late 2013 iMac provides a flexible and versatile desktop workhorse for real time editing and grading material up to and including HD video. With the 4GB GPU memory model, UHD timelines are pratical with some performance limitations especially when using optical flow speed changes, temporal processing and noise reduction.

You should select the fastest CPU iMac, a minumum of 16GB of system memory, the CUDA compliant GPU with 4GB of graphics RAM, and the Thunderbolt™ connection for high speed image playback.

Older model iMacs will reach these GPU limits at lower resolutions and with fewer editing tracks or color grading nodes. Very limited performace is possible on the 2010 and 2011 top of the line iMac's however these systems will not be suitable for any temporal processing, NR or images greater than HD resolution.

MacBook Pro

The 15" late 2013 MacBook Pro with Retina Display is supported for HD work and while it has some processing limitations its excellent portability means it's often found in the field and used for on set work. This system is not optimised for optical flow speed changes, temporal processing and noise reduction work.

You should use the model with the fastest CPU, 16GB of system memory, the CUDA compliant GPU with 2GB and the Thunderbolt™ connection for high speed image playback.

Slower CPUs will limit performance further especially with compressed files and the older 15" 2013 MacBook Pro with 1GB of GPU memory will also have resolution and performance limitations.

Previous generation 17" and 15" MacBook Pros, the current generation 13" models and the MacBook Air in any configuration are not currently recomended.

UHD and 4K-DCI Image Processing

With the increasing use of digital cameras projects now often include camera clips at UHD, 4K-DCI or higher resolutions. While some cameras provide UHD or 4K or higher capture resolutions they usually store the images as compressed data as this takes less storage space and bandwidth.

However for editing and grading, the compressed data needs to be decompressed to the full RGB per pixel bit depth which will use four or more times the processing power of a HD image for the same real time grading performance. The GPU RAM therefore becomes a very important factor when dealing with UHD and 4K-DCI timelines.

Assuming your system has sufficient GPU RAM to play UHD and 4K-DCI images, one way to improve your editing and grading experience is to use a HD resolution timeline and displayed on a HD monitor. After you have completed your edit and grade simply change the timeline resolution for a UHD or 4K-DCI render.

There are many potential speed limits within this 4K pipeline so depending on the clip codec, CPU speed and number of cores, system RAM, the number of GPUs, their core count and GPU RAM, motherboard slot speed, disk speed, etc. each of these can affect the full 4K playback grade and display in real time.

GUI Monitor

The Resolve GUI is optimized for 2560 x 1440 screen resolution but will work with a MacBook Pro 15- inch Hi-Res (1680 x 1050) Widescreen Display and also 1920 x 1080 and higher screen resolutions. If you are using the Macbook Pro 15" with Retina display, select the "Scaled for more space" mode. Dual GUI monitors are supported and these can be different resolutions within the specs listed above.

Thunderbolt™ Expanders

At this time there are no Thunderbolt expanders certified for use with GPUs however you can use a ThunderBolt expander for a fibre channel adapter, storage interface or raid controller, video card or even a Red Rocket. The shopping list later in this guide details tested models and configurations.

Connecting a Calibrated Edit, Client and Grading Monitor

All editors and colorists working on TV or film deliverables will need to use a proper color calibrated monitor connected to a SDI video I/O card for 2D or 3D monitoring. This video output device will utilize a Thunderbolt port and can also feed your client viewing monitor.

DaVinci Resolve supports the Blackmagic Design range of UltraStudio video I/O devices for SDI video and embedded audio ingest and playback. This I/O device is used for connecting your client, editing and calibrated grading monitor. Users can loop a single feed from the VTR to the grading monitor or connect the second SDI output directly to the monitor.

The UltraStudio 4K offers a variety of input and output conections in a rack mount chassis and is connected via Thunderbolt to the MacBook Pro, iMac and 2013 MacPro computer.

You can also use the UltraStudio Mini Recorder and Mini Monitor with DaVinci Resolve however there is no ingest or tape transport controls available with these devices.

For DaVinci Resolve to use the UltraStudio you will need to install the Desktop Video drivers, which came with your I/O device or the updates which are available from the support page at www.blackmagicdesign.com.

File System and Media Storage

DaVinci Resolve for Mac supports a number of internal and external storage systems however almost any storage, designed for Mac OS X and high bandwidth media, will be suitable for use.

A current model MacPro, MacBook Pro and iMac can be connected directly to a Thunderbolt disk array for SD and HD video. Thunderbolt disk arrays provides fast, high capacity disk storage and are easily expandable as your media storage needs grow.

Facilities with SAN based shared storage can work concurrently with projects that are being graded in other Mac, Windows or Linux suites.

The most common connection method for the SAN storage is via a Thunderbolt to Fibre channel adapter to connect to a SAN.

Resolve supports the Quantum StorNext file system so you should install and use the StorNext version as recommend by your local Quantum support office for your operation system.

The Preferences option under the DaVinci Resolve menu is where you can add or remove internal and external disk storage for use with Resolve. The first volume in the list will be used to store gallery stills and cache files so this should be a drive that is always on your system.

Installing the DaVinci Resolve Application

Installing or updating Resolve is essentially the same process.

First, Log-in as the user that will be operating Resolve. You will need an Administrator password to install the software on your system and we recommend that DaVinci Resolve be installed into the standard Applications folder on your startup hard disk.

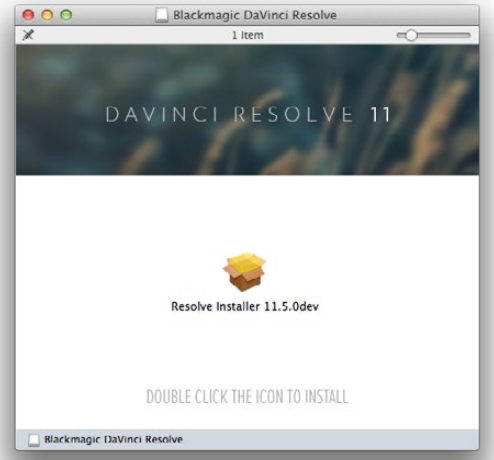
Insert the Resolve DVD or open the downloaded disk image and when the installer window opens, doubleclick the 'Resolve Installer' icon and follow the on-screen prompts to install the software.

The installation process takes just a couple of minutes. When the installation has been completed we suggest you restart your Mac. After the software has been installed and your Mac has restarted, you may wish to add the application icon to your dock to make Resolve easy to launch.

For the full version of DaVinci Resolve, the included USB dongle contains the Resolve for Mac license and must be connected to your computer before launching the Resolve software.

For Resolve to use the UltraStudio 3D for video I/O you will need to install the latest Desktop Video drivers. These are available from the support page at www.blackmagicdesign.com.

If you use Apple Final Cut Pro, Avid Media Composer or Adobe Premiere Pro on the same Mac as Resolve, and you wish to use these applications with a DeckLink or UltraStudio, install the latest Desktop Video drivers after installing your editing applications. Blackmagic Desktop Video drivers install associated easy setup options and presets for a number of editing applications.



Updating Third Party Drivers

DaVinci Resolve uses a number of third party drivers which you may need to install or update depending on the DaVinci Resolve and OS version and also the hardware configuration you are using.

For systems using AMD/ATI GPUs, drivers are included in the Mac OS X so these don't need updating. If you are using DaVinci Resovle from the App Store this also uses the drivers within OSX, even if you have CUDA GPUs.

Systems using NVIDIA GPUs, and not the App Store version of DaVinci Resolve, will need to have the correct NVIDIA and CUDA driver to operate the GPUs. While Resolve will check the CUDA version on your system you may have to update it after any OS updates.

If you install a RED Rocket card in a Thunderbolt expander, you will need the correct card firmware and drivers for the card. Please refer to the read me file for the version of software you are installing.

Systems with NVIDIA CUDA GPUs

The following information is for Macs using NVIDIA CUDA capable GPUs. Please skip past this section if your Mac only contains GPUs from AMD/ATI and you are not using the App Store version of DaVinci Resolve.

There are two parts to successful operation of your NVIDIA CUDA based GPUs.

NVIDIA drivers

If you use Mac OS X 10.8.4 or newer then Apple generally supplies with the OS the NVIDIA drivers for current shipping GPUs. Drivers shipped with older versions of the OS X may not support the new GPUs. You may need to check compatibility and download and install the NVIDIA driver for your GPU.

Older GPUs may also need specific drivers. For example, if you have a Quadro 4000 for your GUI GPU you will need to visit the NVIDIA download site to get the correct NVIDIA driver to install.

CUDA drivers

If your Mac has NVIDIA GPUs and does not have CUDA installed the DaVinci Resolve installer will load the latest CUDA drivers suitable for Resolve. If however your system already has a newer CUDA driver that Resolve needs, the DaVinci Resolve installer will not update this driver as this may cause problems with other applications you have that use CUDA.

It is important to use the version of the CUDA driver that is certified for use with Resolve. Please refer to the Resolve readme corresponding to the version of Resolve for the specific certified CUDA driver.

If the message, "WARNING: No CUDA Acceleration Hardware Detected," appears when you launch Resolve and your Mac contains the recommended NVIDIA GPUs and NVIDIA drivers for those GPUs, you will need to quit Resolve and update the correct CUDA drivers.

After quitting Resolve, go to the Apple menu and choose System Preferences. Then click on the CUDA icon to reveal the CUDA Preferences and note the installed CUDA driver version.

If the installed drivers are older than the certified version listed on the Resolve installer readme, avoid clicking on the "Install CUDA Update" button and instead visit www.nvidia.com/object/mac-driver-archive.html to download the certified CUDA driver version.

Once the certified CUDA drivers are installed, you will be able to successfully launch DaVinci Resolve.

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Checking Licenses
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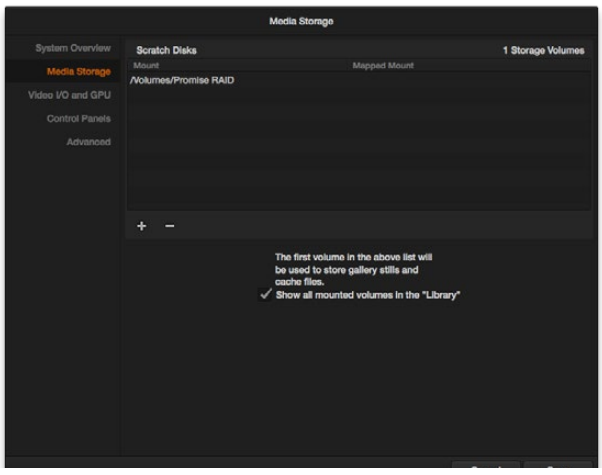
PATENTS 4839718, 5253043, 5874988, 6097853, 6266103, 6337692, 6469747, 6850249, EP0947957A3

First Time You Start DaVinci Resolve

There are three important hardware items to configure when you first start the Resolve application. Open the Hardware Setup by selecting the Preferences window from the DaVinci Resolve application menu.

The first tab shows the System Overview where you can verify that Resolve has found your GPUs and any Red Rocket cards if installed.

The first location in the storage list will become the primary location for images, all proxies, cached files and gallery stills. This location will usually not be your system disk but a specifially installed permanent disk for media. Often it's an internal or external RAID disk array and it needs plenty of storage capacity.



Click on the "+" (add) button to add a volume, folder or mount point to the list of disk storage for your media. Click on the "-" (remove) button to remove a volume, folder or mount point from the list of disk storage.

We recommend you identify your primary drive now and then add and remove other drives as needed but dont change the primary drive until you have considered how to back up and restore your stills.

In the Video I/O and GPU tab select which capture and playback device you will use for SDI monitoring. Depending on your workflow, this device may also be connected to a VTR or camera. If you are using Resovle Live, the Video I/O and GPU tab includes the option to select the video input capture device.

In the Control Panel tab choose which control panel hardware you have connected to your Mac. DaVinci Resolve for Mac supports the current USB 2.0 generation of DaVinci Resolve Control Surface but can also be used with the Avid Artist Color, JLCooper Eclipse CX and Tangent Devices WAVE and Element control panels. Details on connection follow this section.

The Advanced tab is generally not required by most facilities as its for specific system configurations. You should leave this blank unless directed otherwise.

After changing any of these preferences select save and restart the DaVinci Resolve application.

Configuring Third Party Control Panels for Grading

You can use DaVinci Resolve with your mouse and keyboard, with a pen and tablet and also with one of the supported third party control panels. DaVinci Resolve supports the Avid Artist Color, JLCooper Eclipse CX, or either of the Tangent Devices WAVE or Element control panels.

Refer to the instructions from the panel vendor and review with the directions below to configure the panel to work with DaVinci Resolve.

After first starting the Resolve application, open the Hardware Setup tab by selecting 'Preferences' from the DaVinci Resolve application. In the Hardware settings window, select the Control Panel tab and select the control panel you have connected to your Mac. Save the updated preferences and restart the DaVinci Resolve application.

The Tangent Devices WAVE control panel is a USB device and requires no special configuration for use with DaVinci Resolve. Just plug it in to your Mac and select in Resolve. The Tangent Devices Element Bundle is a set of four USB panels that connect to your Mac via a 4-port USB 2.0 hub. You will need to download and install the 'Tangent Hub support pack' to use the panels with DaVinci Resolve. Once the Tangent Hub is installed, plug the panels into your Mac and select in Resolve. The Tangent Hub installer for Mac OS X can be downloaded from http://www.tangentdevices.co.uk/support.asp

If using a JLCooper Eclipse CX, follow the Eclipse CX documentation to connect and configure it with an Ethernet port on your Mac. Then launch Resolve, use the Preferences to select the Eclipse CX panel and click "Save." If you have changed the IP address or port from the default panel settings, enter the IP address and port number for your panel and then click "Save." Restart the DaVinci Resolve application and you will see the panel menus as soon as the application starts.

The Avid Artist Color panels installation is generally quite straight forward. If your Mac is connected to a network with a DHCP server, just connect an Ethernet cable from the panel to the same network switch. Install the EUcontrol application that comes with the panel, or download it from the Avid support site.

Launch the application and you will notice the E icon towards the right side of the top menu bar. When the icon is solid, the panel is communicating with the EUcontrol application and, once selected in the DaVinci Resolve preferences, the panel will display Resolve menus at the next restart of the Resolve application.

If you are not using a DHCP server, refer to the Avid Artist Color installation instructions for setting the IP address of the panel and Mac. It should take just 30 seconds to set.

Mac Pro Configurations

There are no special configuration requirements for the new 2013 Mac Pro. If you are planning UHD and 4K editing and or grading with clients in attendance, the new Mac Pro is a good choice.

The new 2013 Mac Pro includes dual OpenCL GPUs and both of these are used for image processing, even for Resolve Lite licenses. After extensive testing we recommend the D700 GPUs for HD and UHD work. These perform extremely well for HD.

The D500 GPU model offers limited performance in comparison and may also exhaust the GPU ram with clips or timelines greater than HD, or when temporal processes, NR and optical flow speed changes are requested. The D300 model is not recomended at this time.

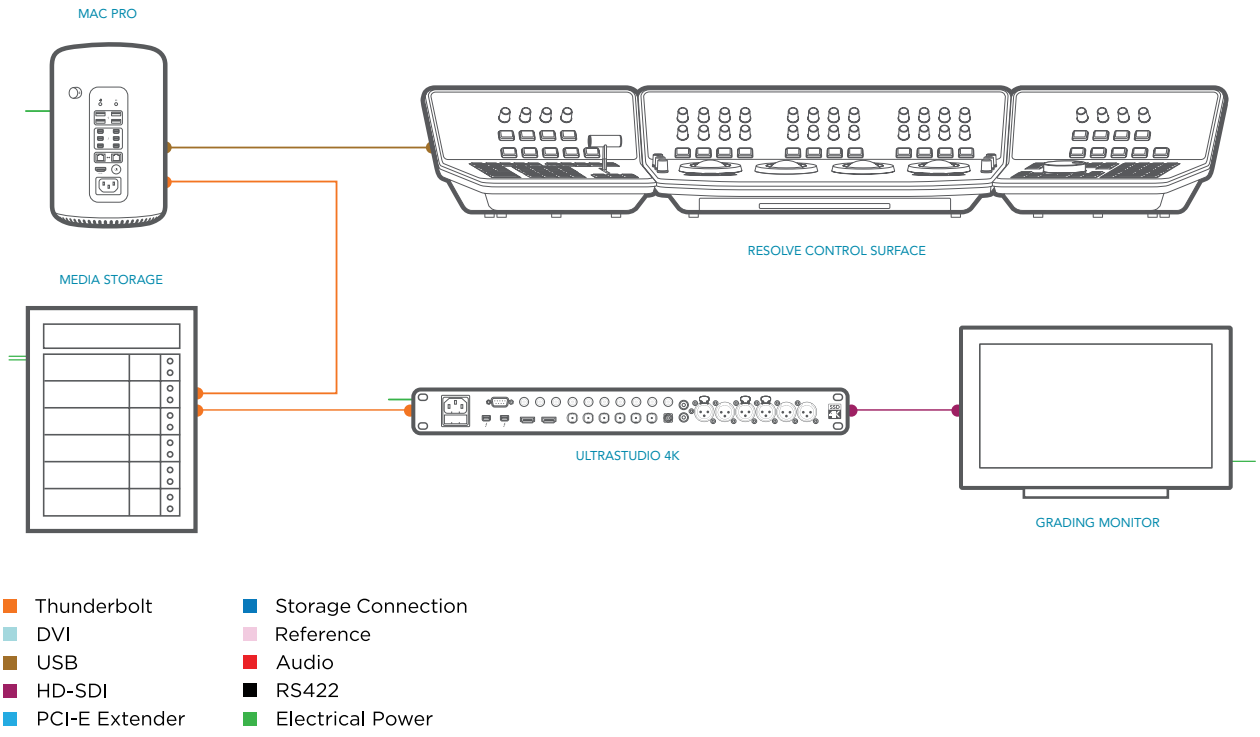
When ordering your new Mac Pro we generally recommend the 8 core CPU with a minimum of 16GB system ram.

The 6 core CPU is supported and viable for HD resolution clips. The 12 core CPU is ideal for when source clips are UHD or higher resolutions and include clip compression, such as clips from the RED and Sony camera range.

All external disk storage systems and the single or dual GUI monitoring is via the Thunderbolt 2 ports. You can select the Promise or other similar RAID storage or connect to a fibre channel SAN via a Thunderbolt to FC adapter.

The Thunderbolt ports are also used to connect the Blackmagic Design UltraStudio 4K for video and audio I/O. The UltraStudio SDI output is connected to your editing and grading video monitor.

The shopping list below details the options availble for a Mac Pro based DaVinci Resolve system.



Mac Pro Shopping List

Software

DaVinci Resolve for Mac

http://www.blackmagicdesign.com

Where to Buy

http://www.blackmagicdesign.com/resellers/

Control Panel

DaVinci Resolve Control Surface
(Note: includes the DaVinci Resolve software)

http://www.blackmagicdesign.com/davinciresolve

Where to Buy

http://www.blackmagicdesign.com/resellers/

Capture Card

Blackmagic Design UltraStudio 4K

Alternatives with a different feature set

Blackmagic Design UltraStudio 3D

Blackmagic Design UltraStudio Express

Blackmagic Design Intensity Exteme

Blackmagic Design Mini Monitor

Blackmagic Design Mini Recorder

(Note: HD-SDI I/O and HDMI output is supported by DaVinci Resolve)

http://www.blackmagicdesign.com/products/

Where to Buy

http://www.blackmagicdesign.com/resellers/

Computer

Apple Mac Pro

Late 2013 model, 12 Core Dual D700 GPU
2.7GHz Intel Xeon E5 12 Core processor
32GB system RAM recommended
1TB PCIe-based internal flash storage
Dual AMD FirePro D700 GPUs
Apple USB SuperDrive
http://www.apple.com/mac/

Where to Buy

http://store.apple.com/

Alternatives with a different feature set

Apple Mac Pro

Late 2013 model, 8 Core Dual D700 GPU
3.0GHz Intel Xeon E5 8 Core processor
16GB system RAM recommended
1TB PCIe-based internal flash storage
Dual AMD FirePro D700 GPUs
Apple USB SuperDrive
http://www.apple.com/mac/

Apple Mac Pro

Late 2013 model, 6 Core Dual D500 GPU
3.5GHz Intel Xeon E5 8 Core processor
16GB system RAM recommended
1TB PCIe-based internal flash storage
Dual AMD FirePro D500 GPUs
Apple USB SuperDrive
http://www.apple.com/mac/

Where to Buy

http://store.apple.com/

Mac Pro Shopping List

GUI Monitor

Apple Thunderbolt Display 27"

Single or Dual as required

http://www.apple.com/displays/

Where to Buy

http://store.apple.com/

Alternatives with a different feature set

With a Thunderbolt adapter, any high quality computer monitor with a 2560x1440 screen resolution. 1920 x 1080 and higher screen resolutions are also supported.

USB Keyboard

Apple Keyboard with Numeric Keypad

Where to Buy

http://store.apple.com/

Alternatives with a different feature set

Logickeyboard Apple DaVinci Resolve

Model: LKBU-RESOLVE-AM89-US

http://www.logickeyboard.com/shop/appledavinci-resolve-2952p.html

Where to Buy

http://www.logickeyboard.com/shop/appledavinci-resolve-2952p.html

USB Mouse Options

Apple Mouse

Where to Buy

http://store.apple.com/

Logitech 3-Button Optical USB Mouse

Where to Buy

Your local computer supplier

Optional USB 2.0 Extender

ICRON USB 2.0 Ranger 2204

http://www.icron.com/products/usb_new/usb20-ranger-2204-cat5-extender.php

Where to Buy

http://www.icron.com/where-to-buy/

Optional alternative control panels with a different feature set

Avid Artist Color

http://www.avid.com/products/Artist-Color

Where to Buy

http://euphonix.avid.com/artist/ux/euphonix/artist_sales.php

JLCooper's Eclipse CX

http://www.jlcooper.com/_php/family.php?fam=eclipseseries

Where to Buy

https://jlcooper.com/secure/_php/store.php?view=info&store=retail

Tangent Devices WAVE

http://www.tangentdevices.co.uk/products_wave.asp

Where to Buy

http://www.tangentdevices.co.uk/reseller_list.asp

Tangent Devices Element Bundle

http://www.tangentdevices.co.uk/products_element.asp

Where to Buy

http://www.tangentdevices.co.uk/reseller_list.asp

Mac Pro Shopping List

Optional Direct Attached External Storage

Multiple alternative options shown

PROMISE Pegasus2 R8, 8 Bay RAID

http://www.promise.com/promotion_page/promotion_page.aspx?region=en-global&rsn=101

PROMISE Pegasus2 R6, 6 Bay RAID

http://www.promise.com/promotion_page/promotion_page.aspx?region=en-global&rsn=101

PROMISE Pegasus2 R4, 4 Bay RAID

http://www.promise.com/promotion_page/promotion_page.aspx?region=en-global&rsn=101

Where to Buy

http://www.promise.com/where2buy/where2buy_region.aspx?region=en-global&m=33

CalDigit T3

http://www.caldigit.com/T3/

Where to Buy

http://www.caldigit.com/Purchase.asp

ACCUSYS A08S3-PS with C1M Adapter

http://www.accusys.com.tw/products/storage/a08s3-ps-new.html

Where to Buy

http://www.accusys.com.tw/where-to-buy/dealeragent.html

Optional ThunderBolt Adapters

ThunderBolt adapters are not suitable for GPUs but some models can be used for a Red Rocket card or storage HBA)

Multiple alternative options shown

Magma ExpressBox 3T

http://www.magma.com/expressbox-3t

Magma ExpressBox 1T

http://www.magma.com/expressbox-1t

Where to Buy

http://www.magma.com/where-to-buy

Sonnet ECHO Express III

http://www.sonnettech.com/product/thunderbolt/index.html

Where to Buy

http://www.sonnettech.com/wheretobuy/index.html

Mac Pro Shopping List

2012 Mac Pro Update

Specific details of the recommended pre 2013 Mac Pro configurations can be found in the 2012 configuration guides however the information below may assist when updating existing systems.

OS Compatibility

To display a boot screen the Mac Pro should use for the GUI GPU one of the Apple certified Nvidia GPUs for Mac. The Quadro K5000 for Mac or the GTX 680 for Mac are two such cards.

The image processing cards can however be selected from a larger list of options and generally are installed in a PCIe expander to offer not only extra PCIe x16 slot space but also sufficent power for the additional cards. Please use the expander slots defined in the previous Mac configuration guides when exchanging GPUs.

While the 2012 and older Mac Pro can be used with 10.8.5 some GPUs will only work with specific drivers and so we recommend moving to 10.9.4 OS. You will note that the number of GPUs supported has changed to two image processing GPUs maximum. This means you can have one GUI GPU and one or two image processing GPUs.

On 10.9.4 OS, the NVIDIA GTX 780, GTX 780ti and TITAN Black have been tested. Other alternatives are also shown below.

Recommended for GUI GPU Only

NVIDIA Quadro K5000 for Mac

http://www.nvidia.com/object/quadro-desktopgpus.html

NVIDIA GeForce GTX 680 for Mac

http://www.geforce.com/hardware/desktop-gpus/geforce-gtx-680

Recommended for Image Processing

NVIDIA GeForce GTX TITAN Black; 6GB GDDR5

SDRAM http://www.geforce.com/hardware/desktop-gpus/geforce-gtx-titan-black

NVIDIA GeForce GTX 780ti with 3GB GDDR5 SDRAM

http://www.geforce.com/hardware/desktop-gpus/geforce-gtx-780-ti

NVIDIA GeForce GTX 780 with 3GB GDDR5 SDRAM

http://www.geforce.com/hardware/desktop-gpus/geforce-gtx-780

Where to Buy

http://www.nvidia.com/object/workstation-wtb.html

http://www.geforce.com/hardware/desktop-gpus/geforce-gtx-780/buy-online

(Select the GPU and then 'Compare and Buy')

iMac Configurations

There are no special configuration requirements for the 27" late 2013 iMac.

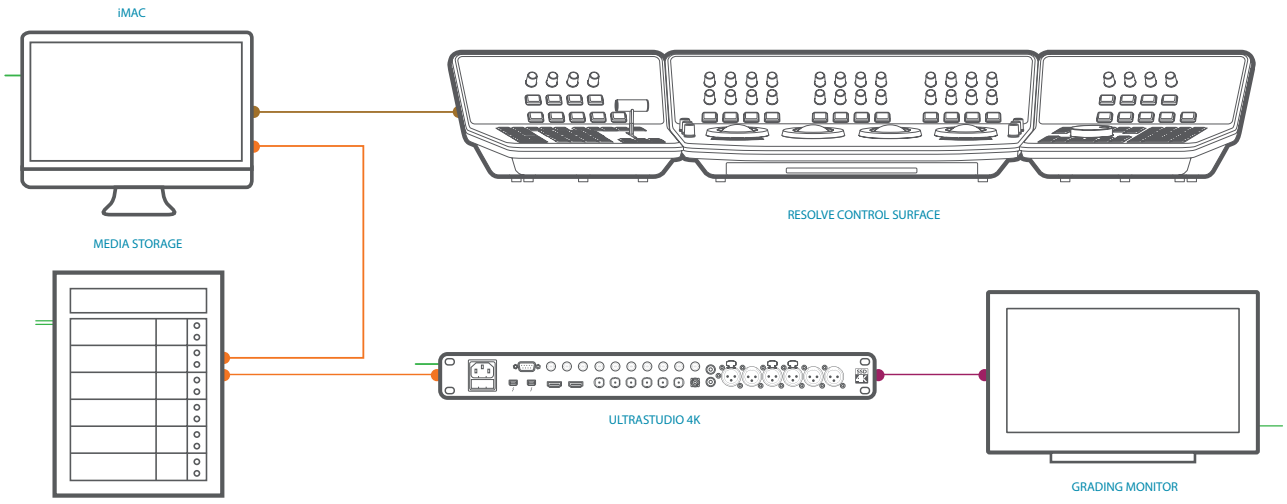
It provides a flexible and versatile desktop workhorse for real time editing and grading material up to and including HD video.

With the 4GB GPU memory model, UHD timelines are pratical with some performance limitations especially when using optical flow speed changes, temporal processing and noise reduction.

You should select the fastest CPU iMac, a minumum of 16GB of system memory, the CUDA compliant GPU with 4GB of graphics RAM, and the Thunderbolt™ connection for high speed image playback.

Configurations with a slower CPU may present performance limitations with compressed media and those with the slower GPU or with just 2GB of GPU RAM will only be suitable for HD or lower resolution media. In this case, optical flow speed changes, temporal processing and noise reduction will also show the limits of the GPU.

As the late 2013 21.5" iMac has a slower GPU with just 1GB of GPU RAM we recommend that it's suitable only for preview and project preparation of HD or lower resolution media.



- Thunderbolt
- DVI
- USB
- HD-SDI
- PCI-E Extender
- Storage Connection
- Reference
- Audio
- RS422
- Electrical Power

iMac Shopping List

Software

DaVinci Resolve for Mac

http://www.blackmagicdesign.com

Where to Buy

http://www.blackmagicdesign.com/resellers/

Control Panel

DaVinci Resolve Control Surface
(Note: includes the DaVinci Resolve software)

http://www.blackmagicdesign.com/davinciresolve

Where to Buy

http://www.blackmagicdesign.com/resellers/

Capture Card

Blackmagic Design UltraStudio 4K

Alternatives with a different feature set

Blackmagic Design UltraStudio 3D

Blackmagic Design UltraStudio Express

Blackmagic Design Intensity Exteme

Blackmagic Design Mini Monitor

Blackmagic Design Mini Recorder

(Note: HD-SDI I/O and HDMI output is supported by DaVinci Resolve)

http://www.blackmagicdesign.com/products/

Where to Buy

http://www.blackmagicdesign.com/resellers/

Computer

Apple iMac

Late 2013 27"model, Quad Core i7
3.5GHz Intel Core i7 processor
16GB system RAM recommended
512GB Internal flash storage
NVIDIA GeForce GTX780M 4GB GPU
Apple USB SuperDrive
http://www.apple.com/imac

Where to Buy

http://store.apple.com/

Alternatives with a different feature set

Apple iMac

Late 2013 27" model, Quad Core i5
3.5GHz Intel Core i5 processor
16GB system RAM recommended
512GB Internal flash storage
NVIDIA GeForce GTX780M 4GB GPU
Apple USB SuperDrive
http://www.apple.com/imac

Where to Buy

http://store.apple.com/

Apple iMac

Late 2013 27"model, Quad Core i5
3.4GHz Intel Core i5 processor
16GB system RAM recommended
512GB Internal flash storage
NVIDIA GeForce GTX775M 2GB GPU
Apple USB SuperDrive
http://www.apple.com/imac

Where to Buy

http://store.apple.com/

iMac Shopping List

GUI Monitor

Apple Thunderbolt Display 27"

Single or Dual as required

http://www.apple.com/displays/

Where to Buy

http://store.apple.com/

Alternatives with a different feature set

With a Thunderbolt adapter, any high quality computer monitor with a 2560x1440 screen resolution. 1920 x 1080 and higher screen resolutions are also supported.

USB Keyboard

Apple Keyboard with Numeric Keypad

Where to Buy

http://store.apple.com/

Alternatives with a different feature set

Logickeyboard Apple DaVinci Resolve

Model: LKBU-RESOLVE-AM89-US

http://www.logickeyboard.com/shop/appledavinci-resolve-2952p.html

Where to Buy

http://www.logickeyboard.com/shop/appledavinci-resolve-2952p.html

USB & Wireless Mouse

Logitech 3-Button Optical USB MouseMicrosoft's Wireless Mouse 5000

Three customizable buttons and a scroll wheel

Where to Buy

Your local computer supplier

Optional USB 2.0 Extender

ICRON USB 2.0 Ranger 2204

http://www.icron.com/products/usb_new/usb20-ranger-2204-cat5-extender.php

Where to Buy

http://www.icron.com/where-to-buy/

Optional alternative control panels with a different feature set

Avid Artist Color

http://www.avid.com/products/Artist-Color

Where to Buy

http://euphonix.avid.com/artist/ux/euphonix/artist_sales.php

JLCooper's Eclipse CX

http://www.jlcooper.com/_php/family.php?fam=eclipseseries

Where to Buy

https://jlcooper.com/secure/_php/store.php?view=info&store=retail

Tangent Devices WAVE

http://www.tangentdevices.co.uk/products_wave.asp

Where to Buy

http://www.tangentdevices.co.uk/reseller_list.asp

Tangent Devices Element Bundle

http://www.tangentdevices.co.uk/products_element.asp

Where to Buy

http://www.tangentdevices.co.uk/reseller_list.asp

iMac Shopping List

Optional Direct Attached External Storage

Multiple alternative options shown

PROMISE Pegasus2 R8, 8 Bay RAID

http://www.promise.com/promotion_page/promotion_page.aspx?region=en-global&rsn=101

PROMISE Pegasus2 R6, 6 Bay RAID

http://www.promise.com/promotion_page/promotion_page.aspx?region=en-global&rsn=101

PROMISE Pegasus2 R4, 4 Bay RAID

http://www.promise.com/promotion_page/promotion_page.aspx?region=en-global&rsn=101

Where to Buy

http://www.promise.com/where2buy/where2buy_region.aspx?region=en-global&m=33

CalDigit T3

http://www.caldigit.com/T3/

Where to Buy

http://www.caldigit.com/Purchase.asp

ACCUSYS A08S3-PS with C1M Adapter

http://www.accusys.com.tw/products/storage/a08s3-ps-new.html

Where to Buy

http://www.accusys.com.tw/where-to-buy/dealeragent.html

Optional ThunderBolt Adapters

ThunderBolt adapters are not suitable for GPUs but some models can be used for a Red Rocket card or storage HBA)

Multiple alternative options shown

Magma ExpressBox 3T

http://www.magma.com/expressbox-3t

Magma ExpressBox 1T

http://www.magma.com/expressbox-1t

Where to Buy

http://www.magma.com/where-to-buy

Sonnet ECHO Express III

http://www.sonnettech.com/product/thunderbolt/index.html

Where to Buy

http://www.sonnettech.com/wheretobuy/index.html

MacBook Pro with Retina Display Configurations

There are a few special configuration requirements for setting up the MacBook Pro with retina display for use with DaVinci Resolve.

The 15" late 2013 MacBook Pro with Retina Display is supported for HD work and while it has some processing limitations its excellent portability means it's often found in the field and used for on set work. This system is not optimised for optical flow speed changes, temporal processing and noise reduction work.

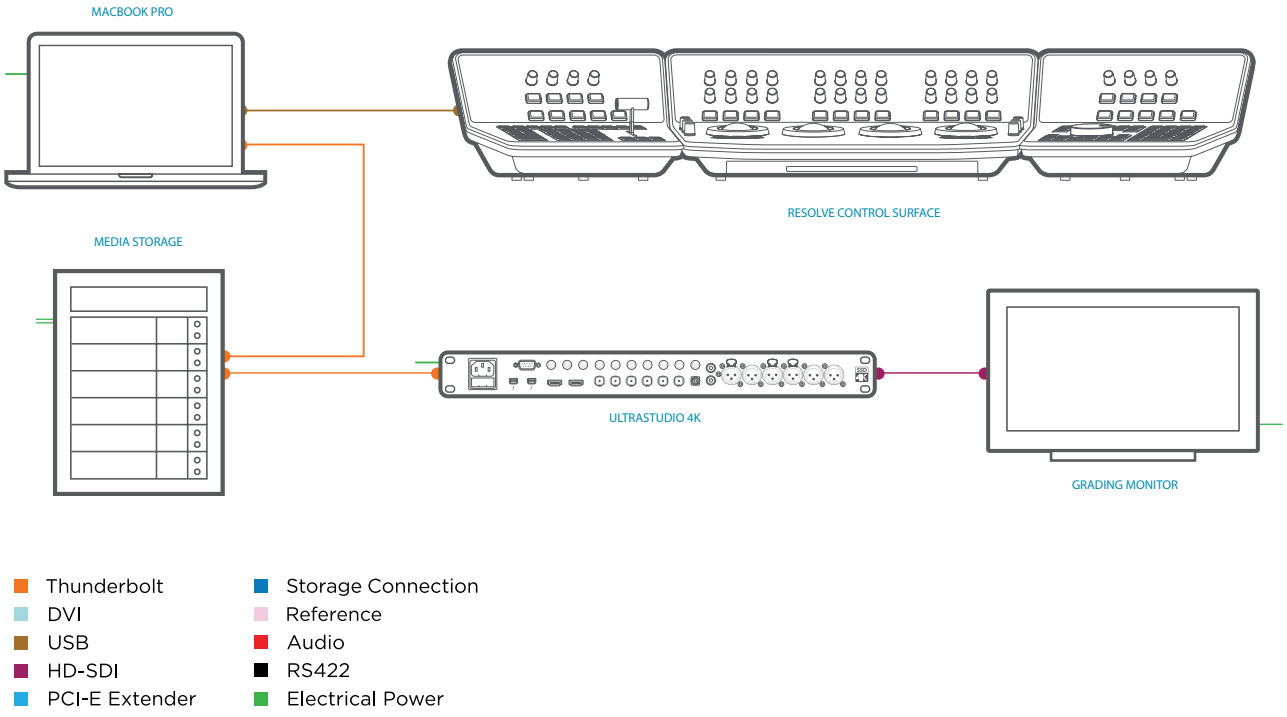
You should use the model with the fastest CPU, 16GB of system memory, the CUDA compliant GPU with 2GB and the Thunderbolt™ connection for high speed image playback.

Slower CPUs will limit performance further especially with compressed files and the older 15" 2013 MacBook Pro with 1GB of GPU memory will also have resolution and performance limitations.

The Resolve interface like many premium applications requires a high GUI resolution. To maximize usability on the retina MacBook Pro 15" we recommend you use the "Scaled for more space" option.

For the older MacBook Pro with a 15-inch high resolution display (Order this option at initial purchase) the GUI should be set to a 1680 x 1050 resolution.

The current MacBook Pro contains two GPUs; one for high performance graphics and the other for better battery life. It is essential to enter the Energy Saver preferences, in the System Preferences of Mac OS X, and select the high performance graphics option. Failing to do so will render Resolve unusable.



MacBook Pro with Retina Display Shopping List

Software

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http://www.blackmagicdesign.com

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http://www.blackmagicdesign.com/resellers/

Control Panel

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(Note: includes the DaVinci Resolve software)

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Blackmagic Design UltraStudio Express

Blackmagic Design Intensity Exteme

Blackmagic Design Mini Monitor

Blackmagic Design Mini Recorder

(Note: HD-SDI I/O and HDMI output is supported by DaVinci Resolve)

http://www.blackmagicdesign.com/products/

Where to Buy

http://www.blackmagicdesign.com/resellers/

Computer

Apple MacBook Pro with Retina Display

2.6GHz Intel Core i7 processor

16GB system RAM recommended

512GB PCIe internal flash storage

NVIDIA GeForce GT 750M 2GB GPU

Apple USB SuperDrive

http://www.apple.com/imac

Where to Buy

http://store.apple.com/

Alternatives with a different feature set

Apple MacBook Pro with Retina Display

Late 2013 15"model, Quad Core i7

2.3GHz Intel Core i7 processor

16GB system RAM recommended

512GB PCIe internal flash storage

NVIDIA GeForce GT 750M 2GB GPU

Apple USB SuperDrive

http://www.apple.com/imac

Where to Buy

http://store.apple.com/

MacBook Pro with Retina Display Shopping List

GUI Monitor

Apple Thunderbolt Display 27"

For Dual GUI monitor operation

http://www.apple.com/displays/

Where to Buy

http://store.apple.com/

Alternatives with a different feature set

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JLCooper's Eclipse CX

http://www.jlcooper.com/_php/family.php?fam=eclipseseries

Where to Buy

https://jlcooper.com/secure/_php/store.php?view=info&store=retail

Tangent Devices WAVE

http://www.tangentdevices.co.uk/products_wave.asp

Where to Buy

http://www.tangentdevices.co.uk/reseller_list.asp

Tangent Devices Element Bundle

http://www.tangentdevices.co.uk/products_element.asp

Where to Buy

http://www.tangentdevices.co.uk/reseller_list.asp

MacBook Pro with Retina Display Shopping List

Optional Direct Attached External Storage

Multiple alternative options shown

PROMISE Pegasus2 R8, 8 Bay RAID

http://www.promise.com/promotion_page/promotion_page.aspx?region=en-global&rsn=101

PROMISE Pegasus2 R6, 6 Bay RAID

http://www.promise.com/promotion_page/promotion_page.aspx?region=en-global&rsn=101

PROMISE Pegasus2 R4, 4 Bay RAID

http://www.promise.com/promotion_page/promotion_page.aspx?region=en-global&rsn=101

Where to Buy

http://www.promise.com/where2buy/where2buy_region.aspx?region=en-global&m=33

CalDigit T3

http://www.caldigit.com/T3/

Where to Buy

http://www.caldigit.com/Purchase.asp

ACCUSYS A08S3-PS with C1M Adapter

http://www.accusys.com.tw/products/storage/a08s3-ps-new.html

Where to Buy

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Magma ExpressBox 1T

http://www.magma.com/expressbox-1t

Where to Buy

http://www.magma.com/where-to-buy

Sonnet ECHO Express III

http://www.sonnettech.com/product/thunderbolt/index.html

Where to Buy

http://www.sonnettech.com/wheretobuy/index.html

Using a Mac as the DaVinci Resolve database server

For facilities that have a number of DaVinci Resolve systems you can share projects and the project databases by using the PostgreSQL database supplied with the full version of DaVinci Resolve and a Remote Database Server. This option is not available for DaVinci Lite users.

This database server, for example a Mac Mini, iMac or a Mac Pro is connected to your grading systems via gigabit Ethernet. The configuration requires the use of the Mac 'Terminal' application so this procedure is designed for an IT professional.

This must be a dedicated Mac as permanent and continuous access is required by each of your connected grading systems.

To set up a DaVinci Resolve remote database server on a Mac OS X computer:

1. Using the DaVinci Resolve for Mac DVD, install the Resolve application on the Mac that you plan to use as the remote database server. You are not going to run Resolve on this machine so you don't need to install special cards, or have a dongle connected, but our application installer will set up the database structure, which is configured for Resolve.

2. Once you have installed the software and restarted the system, you need to set up the permissions and access to the PostgreSQL server application running on this machine. Besure to follow the instructions carefully.

   → From the Applications/Utilities folder open Terminal and type

      → sudo su - postgres

   → At the prompt enter the computer's administrator password, then return

   → You should see "postgres$" followed by the cursor; next type

      → cp /Library/PostgreSQL/8.4/data/pg_hba.conf/Library/PostgreSQL/8.4/ data/pg_hba.conf.backup

   → In the next step you will add your local IP network range, e.g. 192.168.1.0 so change the IP address below to suit your range and type

      → echo "host all all 192.168.1.0/24 md5" >> /Library/PostgreSQL/8.4/data/pg_hba.conf

   → Then restart the Mac.

   Note: You should not change the /24 in the IP address entry above. Just the actual IP address range.

3. You now have a remote database server that you can connect to your Resolve systems via your standard IP network. The PostgreSQL application will run automatically so be sure to leave this Mac on whenever you wish to connect to your Resolve.

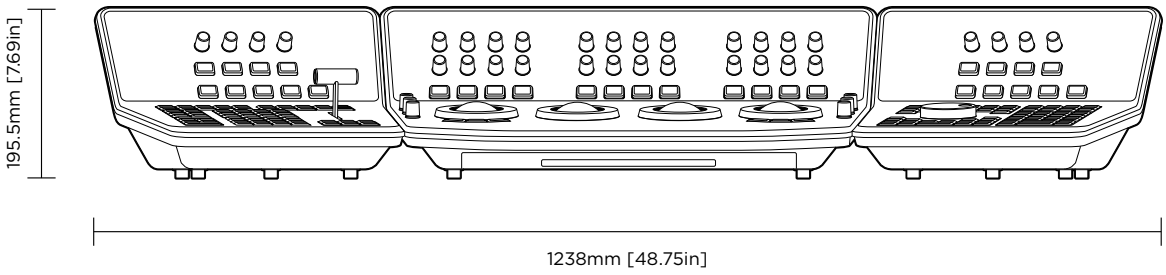
4. On each of your Resolve systems, use the database manager to connect to the databases on the remote database server using the IP address to identify the server.

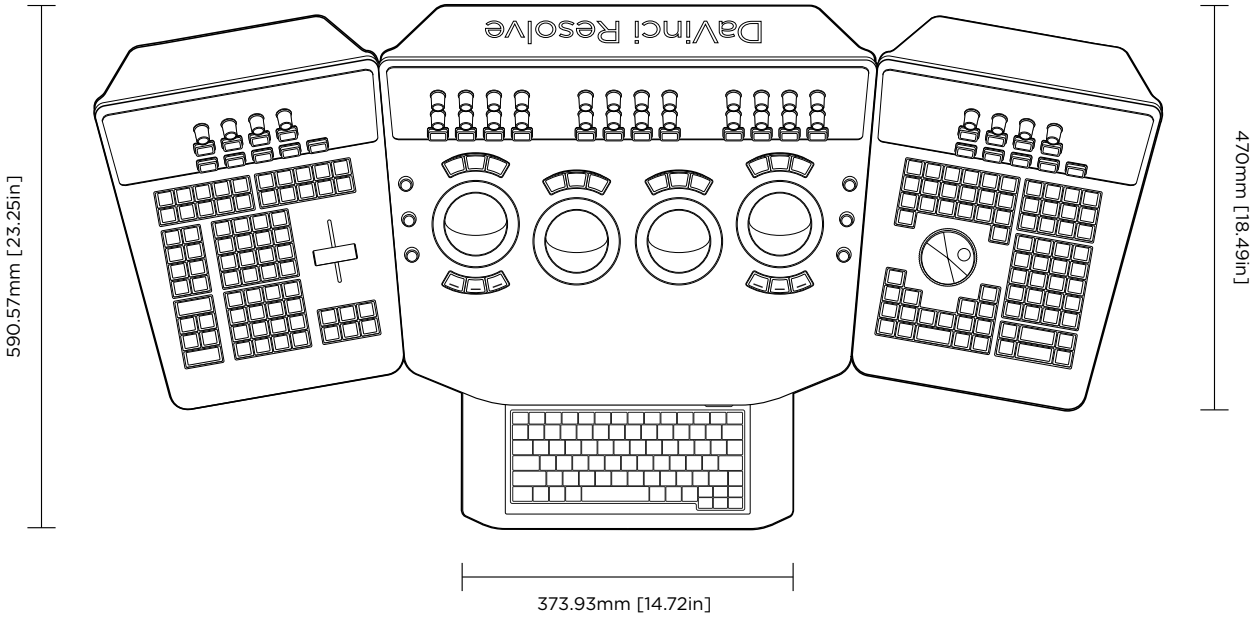
5. You can continue to use the local database on your Resolve or 'Select' the remote database to share projects with other Resolve systems.

DaVinci Resolve Control Surface

Dimensions and Weights

	HEIGHT	WIDTH	DEPTH	WEIGHT
CENTER PANEL	195.5mm (7.69in)	574.1mm (22.60in)	460.7mm (18.14in)	12.2kg (26.9lb)
LEFT PANEL	195.5mm (7.69in)	333.5mm (13.13in)	421.8mm (16.60in)	4.8kg (10.6lb)
RIGHT PANEL	195.5mm (7.69in)	333.5mm (13.13in)	421.8mm (16.60in)	4.8kg (10.6lb)





Warranty

12 Months Limited Warranty

Blackmagic Design warrants that DaVinci Resolve control surface will be free from defects in materials and workmanship for a period of 12 months from the date of purchase. If a product proves to be defective during this warranty period, Blackmagic Design, at its option, either will repair the defective product without charge for parts and l abor, or will provide a replacement in exchange for the defective product. Periodical updates to the operational software are not included under this warranty.

In order to obtain service under this warranty, you theCustomer, must notify Blackmagic Design of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. The Customer shall be responsible for packaging and shipping the defective product to a designated service center nominated by Blackmagic Design, with shipping charges pre paid. Customer shall be responsible for paying all shipping changes, insurance, duties, taxes, and any other charges for products returned to us for any reason.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. Blackmagic Design shall not be obligated to furnish service under this warranty: a) to repair damage resulting from attempts by personnel other than Blackmagic Design representatives to install, repair or service the product, b) to repair damage resulting from improper use or connection to incompatible equipment, c) to repair any damage or malfunction caused by the use of non Blackmagic Design parts or supplies, or d) to service a product that has been modified or integrated with other products when the effect of such a modification or integration increases the time or difficulty of servicing the product. THIS WARRANTY IS GIVEN BY BLACKMAGIC DESIGN IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. BLACKMAGIC DESIGN AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BLACKMAGIC DESIGN'S RESPONSIBILITY TO REPAIR OR REPLACE DEFECTIVE PRODUCTS IS THE WHOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER BLACKMAGIC DESIGN OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. BLACKMAGIC DESIGN IS NOT LIABLE FOR ANY ILLEGAL USE OF EQUIPMENT BY CUSTOMER. BLACKMAGIC IS NOT LIABLE FOR ANY DAMAGES RESULTING FROM USE OF THIS PRODUCT. USER OPERATES THIS PRODUCT AT OWN RISK.

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Thunderbolt and the Thunderbolt logo are trademarks of IntelCorporation in the U.S. and/or other countries.